

Appl. No. 10/678,765  
Amdt. dated March 15, 2006  
Reply to Office Action of March 6, 2006

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-30. (Canceled)

31. (New) A method of screening an agent for toxic activity *in vivo* comprising administering the agent to a teleost *in vivo* and detecting a change in expression of a protein or mRNA in a specific organ or tissue of the teleost responsive to the agent, a response in the teleost indicating toxic activity in the at least one tissue or organ of the teleost.

32. (New) The method of claim 31, wherein the response in the teleost indicating toxic activity is detected over time.

33. (New) The method of claim 31, wherein the response in the teleost indicating toxic activity is detected in at least two tissues, at least two organs, or at least one tissue and one organ simultaneously.

34. (New) The method of claim 33, wherein the response in the teleost indicating toxic activity is over time at predetermined intervals.

35. (New) The method of claim 31, further comprising administering the agent to at least two teleosts and detecting a response indicating toxic activity in each of said at least two teleosts simultaneously.

36. (New) The method of claim 35, wherein each of said at least two teleosts is contained in a well of a multi-well plate.

37. (New) The method of claim 36, wherein the wells of the multi-well plate have a volume of 300 microliters or smaller per well.

38. (New) The method of claim 36, wherein the wells contain the teleosts in a volume of 50-200 microliters per well.